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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/757,967 | 01/14/2004 | Timothy J. Cripsey | 4090-000001 | 4243 |

27572 7590 03/10/2005

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EXAMINER

OMGBA, ESSAMA

ART UNIT PAPER NUMBER

3726

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,967

Applicant(s)

CRIPSEY, TIMOTHY J.

Examiner

Essama Omgba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 6-40 is/are rejected.
- 7) ☒ Claim(s) 1-5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/14/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 1-5 are objected to because of the following informalities: in claim 1, line 3, --a-- should be inserted before "different"; and in line 5, --the-- should be inserted before "first". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 27-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 27 recites the limitation "the tubular member" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Giezen (US Patent 6,842,957).

With regards to claim 6, Van Giezen discloses a process of making a tubular member comprising forming a first sub-blank and a second sub-blank, joining the first and second sub-blanks along a joint line having an axial direction to create a flat blank having opposed side edges, and joining the opposite side edges of the flat blank together to form a tubular member, wherein the tubular member has a cross-section that varies along an axial length of the tubular member and wherein the first and second sub-blanks differ from one another in thickness or material, see column 2, lines 28-65 and the figures.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Weber et al. (US Patent 5,855,137).

Weber et al. discloses a process of making a tubular member comprising forming a substantially tubular member 69A having an initial cross-sectional shape, locating the substantially tubular member in a press forming die 98 between two female dies halves 99, 100 which together define a mold cavity with a cross-sectional shape that is different from the initial cross-sectional shape and that is not circular, and moving the two female die halves together to cause the tubular member to take on the cross-sectional shape of the mold cavity, see column 8, lines 25-62 and figures 12-16.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9, 10, 11, 14, 15 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Giezen.

With regards to claims 9, 11, 14, 32, and 34, Van Giezen discloses a process of making a tubular member comprising forming a first sub-blank and a second sub-blank, joining the first and second sub-blanks along a joint line having an axial direction to create a flat blank having opposed side edges, and joining the opposite side edges of the flat blank together to form a tubular member, wherein the tubular member has a cross-section that varies along an axial length of the tubular member and wherein the first and second sub-blanks differ from one another in thickness or material, see column 2, lines 28-65 and the figures. Although Van Giezen does not disclose a joint line that has both axial and radial directions or an arcuate direction, however it is within the general knowledge of one of ordinary skill in the art to appropriately joint the sub-blanks. Therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to have joined the sub-blanks of Van Giezen along a joint line having both axial and radial components or an arcuate direction as is within the general knowledge of one of ordinary skill in the art. Furthermore joining the sub-blanks along a

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joint line having both axial and radial components or an arcuate direction is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in joining the sub-blanks along a joint line having both axial and radial components or an arcuate direction versus the joint line taught by Van Giezen. It is submitted that the shape and amount of the available material and the desired final shape will dictate the direction of the joint line.

For claim 10, Applicant should note that press forming a flat blank between two female die halves to produce a tubular member is old and well known in the art.

For claim 15, Applicant should note that it is within the general knowledge of one of ordinary skill in the art to appropriately treat the material in order to satisfy the requirements of the desired final product.

10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Giezen in view of Streubel et al. (US Patent 5,924,316).

With regards to 12, Van Giezen discloses a process of making a tubular member as shown above. Although Van Giezen does not disclose forming the blank into a substantially U-shaped member and press-forming the substantially U-shaped member into a substantially tubular member, however such forming techniques are old and well known in the art as attested by Streubel et al., see column 4, lines 4-12 and figure 4. therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the tubular member of Van Giezen as taught by Streubel et al., as is known in the art.

For claim 13, see figure 14 of Van Giezen.

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For claim 33, see the figures of Van Giezen.

For claim 35, Applicant should note that using a flat blank to form a tubular member using two female dies is old and well known in the art.

For claim 36, see column 2, lines 66-67 of Van Giezen.

11. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streubel et al. in view of Van Giezen.

Streubel et al. discloses a process of making a tubular member comprising creating a flat blank 1 having a tendency to spring back (material used for automotive frames), applying a central axial force to the blank to create a substantially U-shaped structure with two substantially parallel arms, each of the arms having a distal edge, and applying a force to move the distal edges of the arms together by a distance, and forming the substantially U-shaped structure into a substantially tubular member, see column 4, lines 4-12 and figure 4. Streubel et al. does not disclose the tubular member having a cross sectional shape that varies along an axial length of the tubular member and wherein the flat blank is formed by joining sub-blanks of different thicknesses or of different materials. However Van Giezen teaches such tubular member formed from such sub-blanks, see column 1, lines 38-45, column 2, lines 28-65 and the figures.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have made the tubular member of Streubel et al. with the sub-blanks taught by Van Giezen in order to produce a tailored tubular member.

12. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al. in view of Streubel et al.

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With regards to claim 22, Weber et al. discloses a process of making a tubular member as shown above except for forming a flat blank into a substantially U-shaped member and press forming the substantially U-shaped member into the substantially tubular member. However Streubel et al. teaches such forming process, see column 4, lines 4-12 and figure 4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the tubular member of Weber et al. as taught by Streubel et al. as is known in the art.

For claims 23-26, Applicant should note that the number of radii defining the cross-sectional shape will depend on the desired final structure and this choice is well within the general knowledge of one of ordinary skill in the art.

13. Claims 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streubel et al. (Streubel'316) in view of Streubel et al. (US Patent 5,836,189).

With regards to claim 27, Streubel'316 discloses a process of making a tubular member comprising forming a substantially U-shaped member, locating the substantially U-shaped member in a press forming die and causing the U-shaped member to take on the cross-sectional shape of the die cavity, see column 4, lines 4-12 and figure 4.

Although Streubel'316 does not disclose the die cavity having a cross-sectional shape that is not substantially circular, however it is known to form tubular members with non-circular cross-sectional shape in die cavities with non-circular cross-sectional shapes as attested by Streubel'189, see figure 6. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a forming die

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with a non-circular cross-sectional cavity in order to form a tailored tubular member with a non-cross sectional shape.

For claims 28-31, Applicant should note that the number of radii defining the cross-sectional shape will depend on the desired final structure and this choice is well within the general knowledge of one of ordinary skill in the art.

14. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Giezen in view of Streubel'316.

With regards to claims 37-38, Van Giezen discloses a method of making a tubular member, the method comprising forming a first sub-blank and a second sub-blank, joining the first and second sub-blanks along a joint line to create a flat blank having opposed side edges, and joining the opposite side edges of the flat blank together to form a tubular member, wherein the tubular member has a cross-section that varies along an axial length of the tubular member and wherein the first and second sub-blanks differ from one another in thickness or material, see column 2, lines 28-65 and the figures. Van Giezen does not disclose forming the blank into a substantially U-shaped member and press-forming the substantially U-shaped member into a substantially tubular member, however such forming techniques are old and well known in the art as attested by Streubel'316, see column 4, lines 4-12 and figure 4. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have formed the tubular member of Van Giezen as taught by Streubel'316, as is known in the art.

For claims 38, see column 2, lines 58-67 of Van Giezen.

Allowable Subject Matter

15. Claims 1-5 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

16. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach a process of making a tubular member comprising forming first and second sub-blanks having different thicknesses, joining the first and second sub-blanks along a joint line to create a flat blank having opposing side edges and a step at the joint between the first and second sub-blanks, locating the flat blank between two press forming die halves so that the step faces outwardly towards the die halves, these in combination with the rest of the limitations in the claim.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F (10-7:30) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Essama Omgba
Primary Examiner
Art Unit 3726

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March 6, 2005